REMARKS

The Office Action dated March 20, 2006, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, claims 3, 5 and 6 have been canceled, and claims 1, 4, 7 and 8 have been amended. No new matter is presented. Claims 1, 2, 4, 7 and 8 are pending and respectfully submitted for consideration.

Rejection Under 35 U.S.C. § 112

Claim 8 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Applicants have amended claim 8 responsive to the rejection and respectfully submit that claim 8 is in compliance with U.S. patent practice.

Rejection Under 35 U.S.C. § 102

Claims 1 and 2 were rejected under 35 U.S.C. § 102(b) as being anticipated by Biddle et al. (U.S. Patent No. 5,979,218, "Biddle"). Claim 2 depends from claim 1. The Applicants traverse the rejection and respectfully submit that claims 1 and 2 recite subject matter that is neither disclosed nor suggested by Biddle.

Biddle discloses a strut transducer 30 designed to replace the strut mount and strut mount cover, and bolt to the shock tower 20 of the vehicle body via bolts 34. The transducer 30 is configured to receive the strut 16, spring 13, and jounce bumper 14 via hub 42.

With respect to claim 1, as amended, the Applicants respectfully submit that Biddle fails to disclose or suggest the claimed features of the invention. Claim 1, as amended, recites a roller bearing provided with a fixed top race secured to the top cup.

In addition, claim 1 recites a device for measuring the forces applied to the vehicle wheel, the device comprising at least one deformation sensor which is associated with the top race so as to measure the deformations of the top race caused by the forces applied. In contrast, Biddle discloses a strut mount transducer for measuring spring, shock absorber and jounce bumper loads presented to a vehicle suspension. See column 1, lines 8-10 of Biddle. The strut mount transducer is not comparable to the deformation sensor associated with the top race so as to measure the deformations of the top race caused by the forces applied. Therefore, Biddle fails to disclose or suggest at least the combination of a roller bearing provided with a fixed top race secured to the top cup and a device comprising at least one deformation sensor which is associated with the top race so as to measure the deformations of the top race caused by the forces applied, as recited in claim 1.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. §102. In addition, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628,631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "Every element of the claimed invention must be arranged as in the claim . . . . . [t]he identical invention must be shown in as complete detail as is contained in the patent claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added). Accordingly, Biddle does not anticipate claims 1 and 2, nor are claims 1 and 2 obvious in view of Biddle. As such, the Applicants submit that claims 1 and 2, as amended, are allowable over the cited art.

Rejections Under 35 U.S.C. § 103

Claims 3-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Biddle in view of the Applicants' disclosure (page 1, lines 4-20). As noted above, claims 3, 5 and 6 have been canceled. The Applicants traverse the rejection and respectfully submit that claim 4, as amended, recites subject matter that is neither disclosed nor suggested by the cited references.

Claim 4 depends from claim 1. As discussed above, Biddle fails to disclose or suggest at least a roller bearing and a device comprising at least one deformation sensor which is associated with the top race. The Applicants' disclosure fails to cure this deficiency in Biddle. Specifically, the Applicants' disclosure does not provide a teaching of a device comprising at least one deformation sensor which is associated with the top race so as to measure the deformations of the top race caused by the forces applied. The Applicants' disclosure states that it is known how to directly measure the forces exerted by the road on the vehicle, these measurements being made either at the tire or at the components of the wheel set. See page 1, lines 27-30 of the Applicants' disclosure. As such, there is no disclosure or suggestion of a deformation sensor associated with a top race so as to measure deformations of the top race, as recited in claim 1. Accordingly, Biddle and the Applicants' disclosure fail to disclose or suggest at least the features of the invention as recited in claim 1, and therefore, dependent claim 4.

Claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Biddle in view of the Applicants' disclosure as applied to claim 4 above, and further in view of Welter et al. (U.S. Patent No. 6,056,446, "Welter"). Claim 7 depends from claim

1. The Applicants traverse the rejection and respectfully submit that claim 7 recites subject matter that is neither disclosed nor suggested by the cited references.

Welter discloses rolling elements 15 arranged in an inner space 14 formed by a radial spacing of the inner ring 2 to the outer ring 12 are retained in a cage 18 and guided on tracks 16, 17 of the inner and the outer rings 2, 12. See column 5, lines 62-65 of Welter.

The Applicants respectfully submit that the combination of Biddle, the Applicants' disclosure and Welter fails to disclose or suggest the claimed features of the invention. As discussed above, Biddle and the Applicants' disclosure fail to disclose or suggest the features of the invention as recited in claim 1. Welter fails to cure the deficiencies in Biddle and the Applicants' disclosure, as Welter also does not disclose or suggest a device comprising at least one deformation sensor which is associated with the top race so as to measure the deformations of the top race caused by the forces applied. As such, Biddle, the Applicants' disclosure and Welter fail to teach or suggest at least the features of the invention as recited in claim 1, and therefore, dependent claim 7.

Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Biddle in view of Gagnon et al. (U.S. Patent No. 5,971,432, "Gagnon"). The Applicants traverse the rejection and respectfully submit that claim 8, as amended, recites subject matter that is neither disclosed nor suggested by the cited references.

Claim 8 recites that the at least one deformation sensor is selected from the group comprising strain gauges based on piezoresistive elements, surface acoustic wave sensors and magnetic field sensors.

Gagnon discloses sensors used to measure the weight of the seat occupant can be of two basic types. The first type is a load cell which experiences very little displacement and directly measures the imposed load. Load cells typically employ strain gauges, piezoresistive, capacitive or piezoelectric sensors. The second type of sensor employs a spring, the springs having a spring constant that controls the amount of displacement for a given load. See column 2, lines 55-62 of Gagnon.

With respect to amended claim 8, the Applicants respectfully submit that Biddle and Gagnon fail to disclose or suggest the claimed features of the invention. As discussed above, Biddle fails to disclose or suggest a device comprising at least one deformation sensor which is associated with the top brace so as to measure the deformations of the top brace caused by the forces applied. The Applicants submit that Gagnon fails to cure this deficiency, as Gagnon also does not disclose or suggest at least this feature. Accordingly, the combination of Biddle and Gagnon fails to disclose or suggest at least the features of the invention as recited in claim 1, and therefore, dependent claim 8.

Under U.S. patent practice, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2142. In this case, none of the Applicants' disclosure, Welter or Gagnon in combination with Biddle teach or suggest all of the claimed features of the invention.

In view of the above, the Applicants respectfully submit that the cited references fail to support a *prima facie* case of obviousness for purposes of a rejection of claims 4, 7 and 8 under 35 U.S.C. § 103.

Conclusion

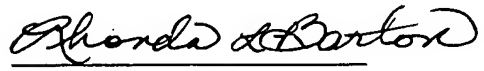
The Applicants respectfully submit that claim 1 is allowable. Claims 2, 4, 7 and 8 depend from claim 1. The Applicants further submit that each of these claims incorporate the patentable aspects thereof, and are therefore allowable for at least the same reasons as discussed above. Accordingly, the Applicants respectfully request withdrawal of the rejections, allowance of claims 1, 2, 4, 7 and 8, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper,

may be charged to counsel's Deposit Account No. 01-2300, **referencing Attorney Dkt. No. 021305-00197**.

Respectfully submitted,



Rhonda L. Barton
Attorney for Applicants
Registration No. 47,271

Customer No. 004372
ARENT FOX PLLC
1050 Connecticut Avenue, N.W., Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810

RLB/elz

Enclosure: Petition for Extension of Time (two months)